

Message

From: Aimee navickis-brasch [aimee@nbswe.com]
Sent: 5/19/2016 12:53:47 PM
To: Lisa Rodenburg [rodenburg@envsci.rutgers.edu]
CC: Heidi Montez [hmontez@landscouncil.org]; Mullin, Michelle [Mullin.Michelle@epa.gov]; maurerm@co.thurston.wa.us; mlascuola@srhd.org; philip.small@landprofile.com; cleary@gonzaga.edu; Mike Petersen [mpetersen@landscouncil.org]; mdavis@spokanecity.org; apearson@spokanecity.org; alexander.taylor@wsu.edu; dgreenlund@spokanecity.org; jdonovan@spokanecity.org; Lisa Rodenburg [redacted Ex. 6 Personal Privacy (PP)]; lahtig@wsdot.wa.gov
Subject: Re: Invitation: Fungi PCB Research Meeting @ Tue Jun 14, 2016 10am - 12pm (aimee@nbswe.com)
Attachments: Falconer (1994) VP and predicted particle gas distribution of PCBs as function of temp and ortho chlorine substitution.pdf

Attached is the article Lisa referenced in the previous email.

Have a good day.

Aimee S. Navickis-Brasch, PhD Candidate, PE
Principal Engineer | NB Stormwater Engineering, LLC
PO Box 18551 | Spokane, WA 99228
cell: (509)995-0557 | email: aimee@nbswe.com

On Wed, May 18, 2016 at 5:58 AM, Lisa Rodenburg <rodenburg@envsci.rutgers.edu> wrote:
Measuring dioxins is harder and about equally expensive as PCBs because although there are fewer dioxin congeners, their concentrations are usually very low and require high resolution MS for measurement. I do not think you need to worry about dioxins forming during the autoclaving.

the vapor pressure can be adjusted for temperature by knowing the deltaH of vaporization. I usually use this reference:

VAPOR-PRESSURES AND PREDICTED PARTICLE GAS DISTRIBUTIONS OF POLYCHLORINATED BIPHENYL CONGENERS AS FUNCTIONS OF TEMPERATURE AND ORTHO-CHLORINE SUBSTITUTION

By: FALCONER, RL; BIDLEMAN, TF
ATMOSPHERIC ENVIRONMENT Volume: 28 Issue: 3 Pages: 547-554 Published: FEB 1994

sorry I do not have a pdf to give you. it is so old that it is not readily available. the information in the attached file was taken from that paper. I went ahead and calculated the vapor pressure at 250 C for you in column m. this is a little bit misleading for two reasons. first, the slope of the vapor pressure line might not be constant over such a large range of temperature. second, the PCBs are sorbed to organic matter, so what you really want is not the vapor pressure but more like the Koa (octanol-air partitioning coefficient). However, after all of this is said, I still do not think you have to worry too much about PCBs vaporizing during the autoclaving step. My colleague here who has done a lot of this type of work says that he has never had a problem with losing PCBs during autoclaving.

lisa

On 5/17/2016 7:54 PM, Heidi Montez wrote:

Thanks Michelle, I really appreciate this.

I wonder if testing for dioxins is easier/ quicker/ cheaper than testing for PCB congeners... I am concerned that analytical testing of the sterilized VW will take a very long time. However I am also concerned with my own, and everyone else's safety. Anyone else have thoughts on this?

Heidi Montez

Special Projects & Outreach

The Lands Council

25 W Main, Ste 222

Spokane, WA 99201

(509)209-2401

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www.landscouncil.org

From: Mullin, Michelle [mailto:Mullin.Michelle@epa.gov]

Sent: Tuesday, May 17, 2016 4:51 PM

To: Heidi Montez; aimee@nbswe.com; maurerm@co.thurston.wa.us; mlascuola@srhd.org; philip.small@landprofile.com; cleary@gonzaga.edu; rodenburg@envsci.rutgers.edu; Mike Petersen; mdavis@spokanecity.org; apearson@spokanecity.org; alexander.taylor@wsu.edu; dgreenlund@spokanecity.org; jdonovan@spokanecity.org; Lisa Rodenburg; maureensafe@gmail.com; lahtig@wsdot.wa.gov

Subject: RE: Invitation: Fungi PCB Research Meeting @ Tue Jun 14, 2016 10am - 12pm (aimee@nbswe.com)

Hi Heidi-

I do want to point out that Aroclor 1260 is a trade name for a mixture of a subset of congeners. This is unlikely to be an identical match to the congeners found in the vector waste.

Here is what I mentioned today was stated from the PCB treatment expert in HQ: "Dioxins are usually formed between 450-750 F under 1 atmosphere. If they are pressure cooking at 15 psi (1 atm gage pressure or 2 atm) and 250 F., it is possible that some dioxins could be formed. To err on the side of caution, I would recommend that there should be some analysis to see if there are any dioxins congeners formed under these conditions(250 F and 2 atm. Pressure)."

I hope that helps!

Michelle Mullin

PCB Coordinator

US EPA Region 10

1200 6th Avenue | Suite 900 | AWT-150

NOTE NEW MAILING ADDRESS

Seattle, WA 98101

mullin.michelle@epa.gov

206-553-1616

www.epa.gov/region10/pcb.html

From: Heidi Montez [<mailto:hmontez@landscouncil.org>]

Sent: Tuesday, May 17, 2016 3:22 PM

To: aimee@nbswe.com; maurerm@co.thurston.wa.us; mlascuola@srhd.org; philip.small@landprofile.com; cleary@gonzaga.edu; rodenburg@envsci.rutgers.edu; Mike Petersen <mpetersen@landscouncil.org>; mdavis@spokanecity.org; apearson@spokanecity.org; Mullin, Michelle <Mullin.Michelle@epa.gov>; alexander.taylor@wsu.edu; dgreenlund@spokanecity.org; jdonovan@spokanecity.org; Lisa Rodenburg <wildvineyard@gmail.com>; maureensafe@gmail.com; lahtig@wsdot.wa.gov
Subject: RE: Invitation: Fungi PCB Research Meeting @ Tue Jun 14, 2016 10am - 12pm (aimee@nbswe.com)

Hello everyone,

After our discussion today about the vapor pressure and temp of PCBs, I found this document on the EPA website:

<https://www3.epa.gov/airtoxics/hlthef/polychlo.html>

Here's one line under the Physical Properties heading: "*The average molecular weight for one particular PCB (Aroclor 1260) is 375.7 g/mol; the vapor pressure is 4.05×10^{-5} mm Hg at 25 C; the octanol/water partition coefficient ($\log K_{ow}$) is 6.8. (1)*"

Could someone help me understand the vapor pressure equation, and how it compares to 250 degrees F, at 15 PSI (guage?) in a pressure cooker?

Thanks so much for attending the meeting today everyone, see you soon,

Heidi Montez

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The Lands Council

25 W Main, Ste 222

Spokane, WA 99201

(509)209-2401

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-----Original Appointment-----

From: Aimee navickis-brasch [<mailto:aimee@nbswe.com>]

Sent: Tuesday, May 17, 2016 3:07 PM

To: maurerm@co.thurston.wa.us; mlascuola@srhd.org; philip.small@landprofile.com; cleary@gonzaga.edu; rodenburg@envsci.rutgers.edu; Mike Petersen; mdavis@spokanecity.org; apearson@spokanecity.org; mullin.michelle@epa.gov; alexander.taylor@wsu.edu; Heidi Montez; dgreenlund@spokanecity.org; jdonovan@spokanecity.org; Lisa Rodenburg; maureensafe@gmail.com; lahtig@wsdot.wa.gov

Subject: Invitation: Fungi PCB Research Meeting @ Tue Jun 14, 2016 10am - 12pm (aimee@nbswe.com)

When: Tuesday, June 14, 2016 10:00 AM-12:00 PM (UTC-08:00) Pacific Time (US & Canada).

Where: The Lands Council or Phone conference

[more details »](#)

Fungi PCB Research Meeting

All,

Thank you all who were able to attend today's meeting and participate in the discussion. Your input and comments were very helpful. If you were not able to attend and have comments on any of the documents I sent out, please email them to me by the end of business on Friday. I plan to email the meeting minutes to everyone by the middle of next week.

Instead of another doodle poll, I decide to select the same time as today's meeting on the date (June 14) that the everyone picked at the end of today's meeting. If this time will not work for you, please let me know. The agenda and any documents for the June meeting will be sent out a week before the meeting.

Please contact me if you have any questions.

Have a good day,

Aimee Navickis-Brasch
(509)995-0557

When	Tue Jun 14, 2016 10am – 12pm Pacific Time
Where	The Lands Council or Phone conference (map)
Video call	https://plus.google.com/hangouts/_/nbswe.com/fungi-pcb

Calendar aimee@nbswe.com

- Aimee navickis-brasch - organizer
- maurerm@co.thurston.wa.us
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- cleary@gonzaga.edu
- rodenburg@envsci.rutgers.edu
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- jdonovan@spokanecity.org
- Lisa Rodenburg
- Ex. 6 Personal Privacy (PP)
- lahtig@wsdot.wa.gov

Going? **Yes** - **Maybe** - **No** more options »

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